

**AUTOMATIC DATA CPU LOAD REDUCTION IN A HOST-SIGNAL
PROCESSING (HSP) BASED ADSL MODEM**

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ABSTRACT OF THE DISCLOSURE

An ADSL transceiver has a sleep state, in which the received signal is not fully processed, thus reducing a load on a host processor hosting the ADSL transceiver. By arranging for the transceiver to be in a normal state when data is being received or expected to be received, the chance of missing data when not fully processing the received signal is reduced. The transceiver can be prompted to exit the sleep state when data is being transmitted and/or periodically. If no data is detected after a period of time in the normal state, the transceiver returns to the normal state. To avoid introducing errors are the receive section of the transceiver returns to full operation, selected outputs of the transceiver are blocked or ignored by higher layers. To quickly recover from a sleep mode, the receive section might perform minimal maintenance operations, such as maintaining timing and logical boundaries, such as frame counters, interleave boundaries and cell boundaries.

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